Baton Rouge Community College
Academic Affairs Master Syllabus

Date Approved or Revised: July 19, 2005

Course Name: General Physics I Lab
Course Number: PHYS 210L

Lecture Hrs. 0 **Lab Hrs. 2** **Credit Hrs. 1**

Course Description: Includes experiments in mechanics, heat, and sound. Designed for students enrolled in both PHYS 201 and PHYS 210.

Prerequisites: None
Co-requisites: PHYS 201 or PHYS 210

Suggested Enrollment Cap: 24

Learning Outcomes: Upon successful completion of this course, the student will be able to:

- Conduct experiments using a wide range of experimental procedures and techniques
- Collect, organize, analyze, and present data correctly and precisely using appropriate statistical and graphical methods
- Estimate and assess uncertainties in collected data, explaining the existence of unexpected results in data sets on laboratory reports
- Properly report experimental data using appropriate graphing methods, significant figures, accuracy, and precision on laboratory reports
- Use the scientific method to effectively make observations, make rational predictions, collect data, interpret, and statistically evaluate experimental results; follow technical writing guidelines to write concise and comprehensive laboratory reports.

Assessment Measures: Instructors may use a variety of assessment measures to assess student performance. But, the following assessments will be used in all sections:

- Individual instructor-designed exams will collectively assess all learning outcomes and will be administered during the semester as listed in the course syllabus.
- Individual instructor and collaboratively departmentally -designed comprehensive final exam, adhering to a department-determined content, will assess all learning outcomes.
- Individual instructor-designed or collaborative instructor-designed assignments will be given as a portion of the total grade and will include homework, quizzes, and individual and collaborative group assignments and projects; all assignments will be graded using an instructor-designed rubric.

Information to be included on the Instructors' Course Syllabi:

- ***Disability Statement*:** Baton Rouge Community College seeks to meet the needs of its students in many ways. See the Office of Disability Services to receive suggestions for disability statements that should be included in each syllabus.

- ***Grading:*** The College grading policy should be included in the course syllabus. Any special practices should also go here. This should include the instructor's and/or the department's policy for make-up work. For example in a speech course, "Speeches not given on due date will receive no grade higher than a sixty" or "Make-up work will not be accepted after the last day of class."

- ***Attendance Policy*:** Include the overall attendance policy of the college. Instructors may want to add additional information in individual syllabi to meet the needs of their courses.

- ***General Policies*:** Instructors' policy on the use of things such as beepers and cell phones and/or hand held programmable calculators should be covered in this section.

- ***Cheating and Plagiarism*:** This must be included in all syllabi and should include the penalties for incidents in a given class. Students should have a clear idea of what constitutes cheating in a given course.

- ***Safety Concerns:*** In some programs this may be a major issue. For example, "No student will be allowed in the safety lab without safety glasses." General statements such as, "Items that may be harmful to one's self or others should not be brought to class."

- ***Library/ Learning Resources:*** Since the development of the total person is part of our mission, assignments in the library and/or the Learning Resources Center should be included to assist students in enhancing skills and in using resources. Students should be encouraged to use the library for reading enjoyment as part of lifelong learning.

Expanded Course Outline:

I. Measurement
   - A. Experimental Error
   - B. Graphing
   - C. Length Measurement
   - D. Density Measurement

II. Vector Motion
   - A. Free fall
   - B. Vector Addition

III. Momentum and Energy
   - A. Inertial Balance
   - B. Center of Gravity and Torque

IV. Wave and Fluid Properties
   - A. Oscillatory and Wave Motion
   - B. Sound and Wave Phenomena
   - C. Fluid Motion

V. Thermodynamics
    A. Heat Work and First Law of Thermodynamics
    B. Second Law of Thermodynamics